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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,546	10/15/2003	Gary Strobel	33685/US/RMS/THR	7717

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EXAMINER

WARE, DEBORAH K

ART UNIT	PAPER NUMBER
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1651

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,546

Applicant(s)

STROBEL ET AL.

Examiner

Deborah K. Ware

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-11 are presented for reconsideration on the merits.

Response to Amendment

The amendment and extension of time filed August 18, 2006, have been received and entered. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC 112, first –Deposit Information

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Since the microorganism, *Muscodor vitigenus*, is recited in the claims, it is essential to the invention recited in those claims. It must therefore be obtainable by a repeatable method set forth in the specification or otherwise be readily available to the public. If the microorganism is not so obtainable or available, the requirements of 35 U.S.C. 112 may be satisfied by a deposit of the microorganism. The specification does

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not disclose a repeatable process to obtain the microorganism and it is not apparent if the microorganism is readily available. It is noted that the novel microorganism has been deposited and designated 2116, note page 5, line 2, but as to the type of deposit and public availability of such deposit this is not disclosed or clear. The following guidelines for depository of microorganisms are provided:

If the deposit is made under the terms of the Budapest Treaty, then an affidavit or declaration by applicants, or a statement by an attorney of record over his or her signature and registration number, stating that the specific strain will be irrevocably and without restriction or condition released to the public upon the issuance of a patent, would satisfy the deposit requirement made herein.

If the deposit has not been made under the Budapest Treaty, then in order to certify that the deposit meets the criteria set forth in 37 C.F.R. §§ 1.801-1.809, applicants may provide assurance of compliance by an affidavit or declaration, or by a statement by an attorney of record over his or her signature and registration number, showing that:

(a) during the pendency of this application, access to the invention will be afforded to the Commissioner upon request;

(b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;

(c) the deposit will be maintained in a public depository for a period of 30 years or 5 years after the last request or for the effective life of the patent, whichever is longer; and

(d) the deposit will be replaced if it should ever become inviable.

Applicant is directed to 37 CFR ' 1.807(b) which states:

(b) A viability statement for each deposit of a biological material defined in paragraph (a) of this section not made under the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure must be filed in the application and must contain:

- (1) The name and address of the depository;
- (2) The name and address of the depositor;
- (3) The date of deposit;
- (4) The identity of the deposit and the accession number given by the depository;
- (5) The date of the viability test;
- (6) The procedures used to

obtain a sample if the test is not done by the depository; and

(7) A statement that the deposit is capable of reproduction.

Applicant is also directed to 37 CFR ' 1.809(d) which states:

(d) For each deposit made pursuant to these regulations, the specification shall contain:

- (1) The accession number for the deposit;
- (2) The date of the deposit;
- (3) A description of the deposited biological material sufficient to specifically identify it and to permit examination; and
- (4) The name and address of the depository.

Response to Arguments

Applicant's arguments filed August 18, 2006, have been fully considered but they are not persuasive. The argument that the microorganism has been deposited under Budapest treaty is noted, however, it is unclear that the deposited strain will always be available to the public because Applicants have not provided sufficient guidance to show that no restrictions or conditions have been placed upon the now deposited strain at the depository upon a public request for access to it, see the above statute and guidance for deposits made under Budapest Treaty. Also see rule under 37 CFR

1.809(d) which provides for special requirement for the specification and what information it should contain relating to the deposited microorganism.

Claim Rejections - 35 USC § 112-New Matter

Claims 10-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly claimed range of 5 ng hr⁻¹ to about 15 ng hr⁻¹ is not clearly described in the instantly filed disclosure. Although there is a lower limit of 5 ng hr⁻¹ within a range of 5 ng hr⁻¹ – 150 ng hr⁻¹, of which is described to be lower and within this range, the upper limit of 15 ng hr⁻¹ is not clearly described, and the closest to 15 ng hr⁻¹ the specification describes is 12 ng hr⁻¹. Therefore, the newly added claims 10-11 are deemed to be new matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are rendered vague and indefinite for the recitation of “substantially” since it is not well defined in the specification as to its intended meaning in the claim in terms of a product per se. It is uncertain what the product is that comprises

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substantially naphthalene. Although the specification does describe producing mostly naphthalene it does not describe a product comprising substantially naphthalene. Also the term "naphthalene derivative" is unclear as to what derivative is being claimed per se. The metes and bounds of the claims can not be determined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strobel et al (US Patent No. 6,911,338 B2), cited on enclosed PTO-892 Form

Claims are drawn to **variants** of *Muscodor vitigenus*, and composition and method of repelling an insect, therefore.

Strobel et al teach *Muscodor* sp. and compositions and method thereof, for treating or protecting plants due to the species fungicidal, bactericidal, nematocidal and insecticidal properties. See the abstract, all lines. Further, the disclosed novel strain by Strobel et al teach that it produces metabolites. Species of *Muscodor albus* and *Muscodor roseus* are also disclosed. See column 29, lines 10 and 12. The microorganism produces Naphthalene as described at column 21, line 20.

The claims differ from Strobel in that *Muscodor vitigenus* species is not disclosed.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to select for variant *Muscodor* species having the ability to produce metabolites as disclosed by Strobel et al (US Patent No. 6,911,338) in order to provide for them in a composition for repelling insects from plants. Clearly one of skill would have expected successful results for providing insecticidal compositions and methods of repelling insects from any variants derived from *Muscodor* species because the same are disclosed by the cited Strobel et al reference to produce effective metabolites such as naphthalene, note column 21, line 20. Applicants' own specification teaches that from their novel *Muscodor vitigenus*, other isolates and species may be obtained, note page 7, lines 20-25 of the instant specification.

Therefore, the cited Strobel et al clearly reads on these isolates and other subspecies because of the teaching of *Muscodor* species by Strobel et al which provide for the identical insecticidal properties as claimed. The variants as claimed are not required in the claim to be of the same species of *Muscodor* as claimed, but only

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derived therefrom. Further, Strobel et al clearly teach a composition and suggest the process step of contacting, and hence a method for its use to repel insects from plants. The claims are clearly *prima facie* obvious over the cited prior art.

Response to Arguments

Applicant's arguments filed August 18, 2006, have been fully considered but they are not persuasive. The argument that the claims as now amended do not read on the cited reference because there is no disclosure of a culture capable of producing a product comprising substantially naphthalene is noted, however, at column 21, line 20, naphthalene is disclosed to be capable of being produced by the microorganism which meets the claim. The argument that it is produced in low amounts is noted, however, the instant claims do not require any amount per se and nor does the instantly filed specification define any intended meaning and context of the term "substantially". Thus, the teaching of a Muscodor variant (i.e. Muscodor species, or Muscodor albus or Muscodor roseus) producing naphthalene does meet the claim.

No defined amounts are defined in the claims and the claims only require the culture to be capable of producing naphthalene of which the cited reference clearly does disclose. To vary the rate of its products is clearly within the skill of an ordinary artisan. Furthermore, a naphthalene derivative is also disclosed. Therefore, Examiner does indeed agree with Applicants statement at page 5, line 1, that it would have been obvious to arrive at the claimed culture based upon these teachings. The variants are clearly suggested, if not taught, by the patented claims especially when considering the

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new amendments which clearly defines a feature also defined by the cited patent. The claims are deemed to be prima facie obvious over the cited reference.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,911,338.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the only difference between the claims and the patented subject matter is scope.

The claims are drawn to *Muscodor* culture variants and composition containing the same.

Patented subject matter of Strobel et al is drawn to *Muscodor* culture and composition containing the same.

For reasons noted above the claims are different than the patented subject matter.

It would have been obvious to one of skill in the art to select for soil as an agricultural carrier for a composition containing a culture variant of *Muscodor vitigenus* of which the variant itself is a different subspecies but is a *Muscodor* culture. The culture would have been expected to contain a carrier for a composition comprising the variant strain of *Muscodor*. Clearly one of skill would have been motivated upon reading the patented claims to provide for the variants of *Muscodor vitigenus* in a composition containing a carrier as claimed. The selection of soil is an obvious choice when considering agriculturally acceptable carriers as claimed in claim 5 of the patent US 6,911,338. The claims are clearly *prima facie* obvious over the cited patent.

Response to Arguments

Applicant's arguments filed August 18, 2006, have been fully considered but they are not persuasive. The argument that the patented claims do not require production of naphthalene is noted, however, as discussed above, the patented claims read on a culture of *Muscodor* strain of which also reads on the instantly claimed variant derived from a strain of *Muscodor*. The breadth of the claims are always carefully noted and during patent examination, the claims are

given the broadest reasonable interpretation consistent with the specification.

See *In re Morris*, 127 F.3d 1048, 4 USPQ2d 1023 (Fed. Cir. 1997).

The patented claims read on a variant which is cultured under conditions that produces naphthalene as disclosed in the specification of the patent.

Therefore, the production of naphthalene is intrinsic to the Muscodor variant claimed in the patent because the capability of producing naphthalene is intrinsic.

Also note that such language does not positively require production of naphthalene but just that it is capable and this is certainly intrinsic to the patented claimed subject matter and within the scope of their claimed invention. To vary the rate of its production is well within the purview of an ordinary artisan. The variants are clearly suggested, if not taught, by the patented claims especially when considering the new amendments which clearly defines a feature also defined by the cited patent. The rejection is, therefore, sustained and the claims are prima facie obvious.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Claims 1-11 fail to be patentably distinguishable over the state of the art discussed above. Therefore, the claims are properly rejected.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah K. Ware whose telephone number is 571-272-0924. The examiner can normally be reached on 9:30-6:00.

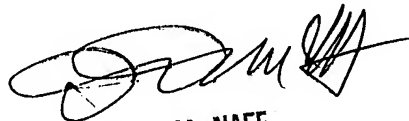
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Deborah K. Ware
October 28, 2006



DAVID M. NAFF
PRIMARY EXAMINER
ART UNIT 128057